

SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING N/A		PAGE OF PAGES 1	
2. CONTRACT NUMBER		3. SOLICITATION NUMBER PR-HQ-04-11505		4. TYPE OF SOLICITATION [] SEALED BID (IFB) [X] NEGOTIATED (RFP)		5. DATE ISSUED 07/09/04	
7. ISSUED BY (Hand Delivered/Overnight Commercial Carriers)		CODE		8. ADDRESS OFFER TO (If other than Item 7) (U. S. Mail Only)			
Environmental Protection Agency Bid and Proposal Room, Ronald Reagan Building, 6th Floor (3802R) 1300 Pennsylvania Avenue, N.W. Washington, DC 20004				Environmental Protection Agency Bid and Proposal Room, Ariel Rios Building (3802R) 1200 Pennsylvania Avenue, N.W. Washington, DC 20460			

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder"

SOLICITATION

9. Sealed offers in original and _____ copies for furnishing the supplies or services in the Schedule will be received at the place specified in item 8, or if handcarried, in the depository until <u>03:00 PM</u> local time <u>7/31/2004</u> (Hour) (Date)											
CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.											
10. FOR INFORMATION CALL:		A. NAME KATHRYN P. BARTON		B. TELEPHONE (NO COLLECT CALLS) AREA CODE 202		NUMBER 564-4783		EXT.		C. E-MAIL ADDRESS barton.kathryn@epa.gov	

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OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions in 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.					
13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause 52-232-8)		10 CALENDAR DAYS	20 CALENDAR DAYS	30 CALENDAR DAYS	____ CALENDAR DAYS
		%	%	%	%
14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated:)		AMENDMENT NO.	DATE	AMENDMENT NO.	DATE
15A. NAME AND ADDRESS OF OFFEROR		CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)	
15B. TELEPHONE NUMBER AREA CODE NUMBER EXT.		15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER [] SUCH ADDRESS IN SCHEDULE		17. SIGNATURE	
				18. OFFER DATE	

AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED		20. AMOUNT		21. ACCOUNTING AND APPROPRIATION	
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: [] 10 U.S.C. 2304(c)() [] 41 U.S.C. 253(c)()				23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	
24. ADMINISTERED BY (If other than item 7)		CODE		25. PAYMENT WILL BE MADE BY CODE:	
				Environmental Protection Agency Research Triangle Park Financial Management Center (D143-02) Research Triangle Park, NC 27711	
26. NAME OF CONTRACTING OFFICER (Type or print)				27. UNITED STATES OF AMERICA	
				(Signature of Contracting Officer)	
				28. AWARD DATE	

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

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Previous edition is unusableSTANDARD FORM 33 (REV. 9-97)
Prescribed by GSA - FAR (48 CFR) 53.214(c)

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PART I - THE SCHEDULE**SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS****B.1 CONTRACT TERMS AND CONDITIONS -- COMMERCIAL ITEMS (FAR 52.212-4) (OCT 2003)**

(a) *Inspection/Acceptance.* The Contractor shall only tender for acceptance those items that conform to the requirements of this contract. The Government reserves the right to inspect or test any supplies or services that have been tendered for acceptance. The Government may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in contract price. The Government must exercise its post-acceptance rights --

(1) Within a reasonable time after the defect was discovered or should have been discovered; and

(2) Before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.

(b) *Assignment.* The Contractor or its assignee may assign its rights to receive payment due as a result of performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency in accordance with the Assignment of Claims Act (31 U.S.C.3727). However, when a third party makes payment (e.g., use of the Governmentwide commercial purchase card), the Contractor may not assign its rights to receive payment under this contract.

(c) *Changes.* Changes in the terms and conditions of this contract may be made only by written agreement of the parties.

(d) *Disputes.* This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613). Failure of the parties to this contract to reach agreement on any request for equitable adjustment, claim, appeal or action arising under or relating to this contract shall be a dispute to be resolved in accordance with the clause at FAR 52.233-1, Disputes, which is incorporated herein by reference. The Contractor shall proceed diligently with performance of this contract, pending final resolution of any dispute arising under the contract.

(e) *Definitions.* The clause at FAR 52.202-1, Definitions, is incorporated herein by reference.

(f) *Excusable delays.* The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Contractor and without its fault or negligence such as, acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall

notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.

(g) *Invoice.* (1) The Contractor shall submit an original invoice and three copies (or electronic invoice, if authorized) to the address designated in the contract to receive invoices. An invoice must include--

(i) Name and address of the Contractor;

(ii) Invoice date and number;

(iii) Contract number, contract line item number and, if applicable, the order number;

(iv) Description, quantity, unit of measure, unit price and extended price of the items delivered;

(v) Shipping number and date of shipment, including the bill of lading number and weight of shipment if shipped on Government bill of lading;

(vi) Terms of any discount for prompt payment offered;

(vii) Name and address of official to whom payment is to be sent;

(viii) Name, title, and phone number of person to notify in event of defective invoice; and

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision, contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(2) Invoices will be handled in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) prompt payment regulations at 5 CFR part 1315.

(h) *Patent indemnity.* The Contractor shall indemnify the Government and its officers, employees and agents against liability, including costs, for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark or copyright, arising out of the performance of this contract, provided the Contractor is reasonably notified of such claims and proceedings.

(i) *Payment.--(1) Items accepted.* Payment shall be made for items accepted by the Government that have been delivered to the delivery destinations set forth in this contract.

(2) *Prompt payment.* The Government will make payment in accordance with the Prompt Payment Act (31 U.S.C. 3903) and prompt payment regulations at 5 CFR part 1315.

(3) *Electronic Funds Transfer (EFT).* If the Government makes payment by EFT, see 52.212-5(b) for the appropriate EFT clause.

(4) *Discount.* In connection with any discount offered for early payment, time shall be computed from the date of the invoice. For the purpose of computing the discount earned, payment shall be considered to have been made on the date which appears on the payment check or the specified payment date if an electronic funds transfer payment is made.

(5) *Overpayments.* If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(j) *Risk of loss.* Unless the contract specifically provides otherwise, risk of loss or damage to the supplies provided under this contract shall remain with the Contractor until, and shall pass to the Government upon:

(1) Delivery of the supplies to a carrier, if transportation is f.o.b. origin; or

(2) Delivery of the supplies to the Government at the destination specified in the contract, if transportation is f.o.b. destination.

(k) *Taxes.* The contract price includes all applicable Federal, State, and local taxes and duties.

(l) *Termination for the Government's convenience.* The Government reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Contractor can demonstrate to the satisfaction of the Government using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this

purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred which reasonably could have been avoided.

(m) *Termination for cause.* The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such termination shall be deemed a termination for convenience.

(n) *Title.* Unless specified elsewhere in this contract, title to items furnished under this contract shall pass to the Government upon acceptance, regardless of when or where the Government takes physical possession.

(o) *Warranty.* The Contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this contract.

(p) *Limitation of liability.* Except as otherwise provided by an express warranty, the Contractor will not be liable to the Government for consequential damages resulting from any defect or deficiencies in accepted items.

(q) *Other compliances.* The Contractor shall comply with all applicable Federal, State and local laws, executive orders, rules and regulations applicable to its performance under this contract.

(r) *Compliance with laws unique to Government contracts.* The Contractor agrees to comply with 31 U.S.C. 1352 relating to limitations on the use of appropriated funds to influence certain Federal contracts; 18 U.S.C. 431 relating to officials not to benefit; 40 U.S.C. 327, et seq., Contract Work Hours and Safety Standards Act; 41 U.S.C. 51-58, Anti-Kickback Act of 1986; 41 U.S.C. 265 and 10 U.S.C. 2409 relating to whistleblower protections; 49 U.S.C. 40118, Fly American; and 41 U.S.C. 423 relating to procurement integrity.

(s) *Order of precedence.* Any inconsistencies in this solicitation or contract shall be resolved by giving precedence in the following order:

- (1) The schedule of supplies/services.
- (2) The Assignments, Disputes, Payments, Invoice, Other Compliances, and Compliance with Laws Unique to Government Contracts paragraphs of this clause.
- (3) The clause at 52.212-5.
- (4) Addenda to this solicitation or contract, including any license agreements for computer software.
- (5) Solicitation provisions if this is a solicitation.

- (6) Other paragraphs of this clause.
- (7) The Standard Form 1449.
- (8) Other documents, exhibits, and attachments.
- (9) The specification.

(t) *Central Contractor Registration (CCR)*. (1) Unless exempted by an addendum to this contract, the Contractor is responsible during performance and through final payment of any contract for the accuracy and completeness of the data within the CCR database, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to review and update on an annual basis from the date of initial registration or subsequent updates its information in the CCR database to ensure it is current, accurate and complete. Updating information in the CCR does not alter the terms and conditions of this contract and is not a substitute for a properly executed contractual document.

(2) (i) If a Contractor has legally changed its business name, "doing business as" name, or division name (whichever is shown on the contract), or has transferred the assets used in performing the contract, but has not completed the necessary requirements regarding novation and change-of-name agreements in FAR subpart 42.12, the Contractor shall provide the responsible Contracting Officer a minimum of one business day's written notification of its intention to (A) change the name in the CCR database; (B) comply with the requirements of subpart 42.12; and (C) agree in writing to the timeline and procedures specified by the responsible Contracting Officer. The Contractor must provide with the notification sufficient documentation to support the legally changed name.

(ii) If the Contractor fails to comply with the requirements of paragraph (t) (2) (i) of this clause, or fails to perform the agreement at paragraph (t) (2) (i) (C) of this clause, and, in the absence of a properly executed novation or change-of-name agreement, the CCR information that shows the Contractor to be other than the Contractor indicated in the contract will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the electronic funds transfer (EFT) clause of this contract.

(3) The Contractor shall not change the name or address for EFT payments or manual payments, as appropriate, in the CCR record to reflect an assignee for the purpose of assignment of claims (see Subpart 32.8, Assignment of Claims). Assignees shall be separately registered in the CCR database. Information provided to the Contractor's CCR record that indicates payments, including those made by EFT, to an ultimate recipient other than that Contractor will be considered to be incorrect information within the meaning of the "Suspension of payment" paragraph of the EFT clause of this contract.

(4) Offerors and Contractors may obtain information on registration and annual confirmation requirements via the internet at <http://www.ccr.gov> or by calling 1-888-227-2423 or 269-961-5757.

B.2 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS -- COMMERCIAL ITEMS (FAR 52.212-5) (MAY 2004)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clause, which is incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items: 52.233-3, Protest after Award (AUG 1996) (31 U.S.C. 3553).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

[Contracting Officer check as appropriate.]

___(1) 52.203-6, Restrictions on Subcontractor Sales to the Government (JUL 1995), with Alternate I (OCT 1995) (41 U.S.C. 253g and 10 U.S.C. 2402).

___(2) 52.219-3, Notice of Total HUBZone Set-Aside (JAN 1999) (15 U.S.C. 657a).

___(3) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (JAN 1999) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).

___(4)(i) 52.219-5, Very Small Business Set-Aside (JUNE 2003) (Pub. L. 103-403, section 304, Small Business Reauthorization and Amendments Act of 1994).

___(ii) Alternate I (MAR 1999) of 52.219-5.

___(iii) Alternate II (JUNE 2003) of 52.219-5.

___(5)(i) 52.219-6, Notice of Total Small Business Set-Aside (JUNE 2003) (15 U.S.C. 644).

___(ii) Alternate I (OCT 1995) of 52.219-6.

___(iii) Alternate II (MAR 2004) of 52.219-6

___(6)(i) 52.219-7, Notice of Partial Small Business Set-Aside (JUNE 2003) (15 U.S.C. 644).

___(ii) Alternate I (OCT 1995) of 52.219-7.

___(iii) Alternate II (MAR 2004) of 52.219-7

___(7) 52.219-8, Utilization of Small Business Concerns (OCT 2000) (15 U.S.C. 637 (d) (2) and (3)).

___(8)(i) 52.219-9, Small Business Subcontracting Plan (JAN 2002) (15 U.S.C. 637(d) (4)).

___(ii) Alternate I (OCT 2001) of 52.219-9.

___(iii) Alternate II (OCT 2001) of 52.219-9.

___(9) 52.219-14, Limitations on Subcontracting (DEC 1996) (15 U.S.C. 637(a)(14)).

___(10) (i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (JUNE 2003) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer).

___(ii) Alternate I (JUNE 2003) of 52.219-23.

___(11) 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting (OCT 1999) (Pub.L. 103-355, section 7102, and 10 U.S.C. 2323).

___(12) 52.219-26, Small Disadvantaged Business Participation Program--Incentive Subcontracting (OCT 2000) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

___(13) 52.219-27, Notice of Total Service-Disabled Veteran-Owned Small Business Set-Aside (May 2004).

___(14) 52.222-3, Convict Labor (JUNE 2003) (E.O. 11755).

___(15) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (Jan 2004) (E.O. 13126).

___(16) 52.222-21, Prohibition of Segregated Facilities (FEB 1999).

___(17) 52.222-26, Equal Opportunity (APR 2002) (E.O. 11246).

___(18) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212).

___(19) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

___(20) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212).

___(21) (i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (AUG 2000) (42 U.S.C. 6962(c)(3)(A)(ii)).

___(ii) Alternate I (AUG 2000) of 52.223-9 (42 U.S.C. 6962(i)(2)(C)).

___(22) 52.225-1, Buy American Act--Supplies (JUNE 2003) (41 U.S.C. 10a-10d).

___(23) (i) 52.225-3, Buy American Act--Free Trade Agreements--Israeli

Trade Act (Jan 2004) (41 U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note, Pub. L. 108-77, 108-78).

___ (ii) Alternate I (Jan 2004) of 52.225-3.

___ (iii) Alternate II (Jan 2004) of 52.225-3.

___ (24) 52.225-5, Trade Agreements (Jan 2004) (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).

___ (25) 52.225-13, Restrictions on Certain Foreign Purchases (DEC 2003) (E.o.s proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

___ (26) 52.225-15, Sanctioned European Union Country End Products (FEB 2000) (E.O. 12849).

___ (27) 52.225-16, Sanctioned European Union Country Services (FEB 2000) (E.O. 12849).

___ (28) 52.232-29, Terms for Financing of Purchases of Commercial Items (FEB 2002) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

___ (29) 52.232-30, Installment Payments for Commercial Items (OCT 1995) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

___ (30) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (OCT 2003) (31 U.S.C. 3332).

___ (31) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration (MAY 1999) (31 U.S.C. 3332).

___ (32) 52.232-36, Payment by Third Party (MAY 1999) (31 U.S.C. 3332).

___ (33) 52.239-1, Privacy or Security Safeguards (AUG 1996) (5 U.S.C. 552a).

___ (34) (i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (APR 2003) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631).

___ (ii) Alternate I (APR 1984) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

[Contracting Officer check as appropriate.]

___ (1) 52.222-41, Service Contract Act of 1965, as Amended (MAY 1989) (41 U.S.C. 351, et seq.).

___ (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (MAY 1989) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).

___(3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (MAY 1989) (29 U.S.C. 206 and 41 U.S.C. 351, *et seq.*).

___(4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (February 2002) (29 U.S.C. 206 and 41 U.S.C. 351, *et seq.*).

___(5) 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to PreDecemberessor Contractor Collective Bargaining Agreements (CBA) (May 1989) (41 U.S.C. 351, *et seq.*).

(d) *Comptroller General Examination of Record.* The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records -- Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e)(1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in paragraphs (i) through (vi) of this paragraph in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause--

(i) 52.219-8, Utilization of Small Business Concerns (May 2004) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$500,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (April 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (December 2001) (38 U.S.C. 4212).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793).

(v) 52.222-41, Service Contract Act of 1965, as Amended (May 1989), flow down required for all subcontracts subject to the Service Contract Act of 1965 (41 U.S.C. 351, *et seq.*).

(vi) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (April 2003) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the contractor may include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

B.3 FIXED PRICES--INDEFINITE DELIVERY/INDEFINITE QUANTITY CONTRACT (EP 52.216-135) (APR 1984)

The following fixed prices shall apply for payment purposes for the duration of the contract:

BASE PERIOD

<u>Item</u>	<u>Item Description</u>	<u>Qty.</u>	<u>Item Price</u>
0001	FIRST ARTLICLE--Fabricate, document and build prototype Fixed Station Air and Radiation Monitoring System in accordance with the Statement of Work (SOW) specifications	1	\$
0001AA	Fixed Station Air and Radiation Monitoring Systems	59	\$
0001AB	Wind Speed and Direction Instruments for Fixed Station Air and Radiation Monitoring Systems	59	\$
0001AC	Monitoring Station Calibration Kits	5	\$
0001AD	Remote User Interface and Control Software	2	\$
0001AE	Training Video	1	\$
0001AF	Training Video Copy	59	\$
0001AG	On-site Installation and Start-up of Monitoring Stations	59	\$

OPTION PERIOD I

<u>Item</u>	<u>Item Description</u>	<u>Qty.</u>	<u>Item Price</u>
0002AA	Fixed Station Air and Radiation Monitoring Systems		\$
0002AB	Wind Speed and Direction Instruments for Fixed Station Air and Radiation Monitoring Systems		\$
0002AC	Monitoring Station Calibration Kits		\$
0002AD	Remote User Interface and Control Software		\$
0002AF	Training Video Copy		\$
0002AG	On-site Installation and Start-up of Monitoring Stations		\$

OPTION PERIOD II

<u>Item</u>	<u>Item Description</u>	<u>Qty.</u>	<u>Item Price</u>
0003AA	Fixed Station Air and Radiation Monitoring Systems		\$
0003AB	Wind Speed and Direction Instruments for Fixed Station Air and Radiation Monitoring Systems		\$
0003AC	Monitoring Station Calibration Kits		\$
0003AD	Remote User Interface and Control Software		\$
0003AF	Training Video Copy		\$
0003AG	On-site Installation and Start-up of Monitoring Stations		\$

OPTION PERIOD III

<u>Item</u>	<u>Item Description</u>	<u>Qty.</u>	<u>Item Price</u>
0004AA	Fixed Station Air and Radiation Monitoring Systems		\$
0004AB	Wind Speed and Direction Instruments for Fixed Station Air and Radiation Monitoring Systems		\$
0004AC	Monitoring Station Calibration Kits		\$

0004AD	Remote User Interface and Control Software	\$
0004AF	Training Video Copy	\$
0004AG	On-site Installation and Start-up of Monitoring Stations	\$

OPTION PERIOD IV

<u>Item</u>	<u>Item Description</u>	<u>Qty.</u>	<u>Item Price</u>
0005AA	Fixed Station Air and Radiation Monitoring Systems		\$
0005AB	Wind Speed and Direction Instruments for Fixed Station Air and Radiation Monitoring Systems		\$
0005AC	Monitoring Station Calibration Kits		\$
0005AD	Remote User Interface and Control Software		\$
0005AF	Training Video Copy		\$
0005AG	On-site Installation and Start-up of Monitoring Stations		\$

B.4 MINIMUM AND MAXIMUM AMOUNTS (EP 52.216-140) (APR 1984)

During the period specified in the "Ordering" clause, the Government shall place orders totaling a minimum of to be specified at contract award. The amount of all orders shall not exceed to be specified at contract award.

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT**C.1 INSTRUCTIONS TO OFFERORS -- COMMERCIAL ITEMS (FAR 52.212-1) (JAN 2004)
DEVIATION**

(a) *North American Industry Classification System (NAICS) code and small business size standard.* The NAICS code and small business size standard for this acquisition appear in Block 10 of the solicitation cover sheet (SF 1449). However, the small business size standard for a concern which submits an offer in its own name, but which proposes to furnish an item which it did not itself manufacture, is 500 employees.

(b) *Submission of offers.* Submit signed and dated offers to the office specified in this solicitation at or before the exact time specified in this solicitation. Offers may be submitted on the SF 1449, letterhead stationery, or as otherwise specified in the solicitation. As a minimum, offers must show--

- (1) The solicitation number;
- (2) The time specified in the solicitation for receipt of offers;
- (3) The name, address, and telephone number of the offeror;
- (4) A technical description of the items being offered in sufficient detail to evaluate compliance with the requirements in the solicitation. This may include product literature, or other documents, if necessary;
- (5) Terms of any express warranty;
- (6) Price and any discount terms;
- (7) "Remit to" address, if different than mailing address;
- (8) A completed copy of the representations and certifications at FAR 52.212-3;
- (9) Acknowledgment of Solicitation Amendments;
- (10) Instructions for Past Performance and Technical Performance Sections

Past Performance--Offerors shall submit a list of all contracts and subcontracts completed in the last three years, and all contracts and subcontracts currently in process, which are similar in nature to this requirement.

The contracts and subcontracts listed may include those entered into with Federal, State and local governments, and commercial businesses, which are of similar scope, magnitude, relevance, and complexity to the requirement which is described in the RFP. Include the following information for each contract

and subcontract listed:

- (a) Name of contracting activity.
- (b) Contract number.
- (c) Contract title.
- (d) Contract type.
- (e) Brief description of contract or subcontract and relevance to this requirement.
- (f) Total contract value.
- (g) Period of performance.
- (h) Contracting officer, telephone number, and E-mail address (if available).
- (i) Program manager/project officer, telephone number, and E-mail address (if available).

Past performance information will be used for both responsibility determinations and as an evaluation factor for award.

Any information collected concerning an offeror's past performance will be maintained in the official contract file.

Technical Performance--The Offeror shall demonstrate capability of the proposed radiation detection system components to meet at least the minimum capabilities specified in the Statement of Work. Each Offeror shall provide estimates of the following parameters for the detector system(s) proposed, when tested following the general principles described in ANSI/IEEE Std 325-1986, but using an 8 cm diameter planar source containing Am-241, Cs-137, Co-60 and Y-88 in relative concentrations that result in approximately equal emission rates for the principal gammas, and centered 1 cm from the detector end cap. The estimates shall assume that the detector(s) are mounted on an operating high volume air sampler and shall specifically account for any effects from microphonics. The submittal shall describe the methods used to measure or estimate these parameters.

(11) If the offer is not submitted on the SF 1449, include a statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation. Offers that fail to furnish required representations or information, or reject the terms and conditions of the solicitation may be excluded from consideration.

(c) *Period for acceptance of offers.* The offeror agrees to hold the prices in its offer firm for 30 calendar days from the date specified for receipt of offers, unless another time period is specified in an addendum to the solicitation.

(d) *Product samples.* When required by the solicitation, product samples shall be submitted at or prior to the time specified for receipt of offers. Unless otherwise specified in this solicitation, these samples shall be submitted at no expense to the Government, and returned at the sender's request and expense, unless they are destroyed during preaward testing.

(e) *Multiple offers.* Offerors are encouraged to submit multiple offers presenting alternative terms and conditions or commercial items for satisfying

the requirements of this solicitation. Each offer submitted will be evaluated separately.

(f) *Late submissions, modifications, revisions, and withdrawals of offers.*

(1) Offerors are responsible for submitting offers, and any modifications, revisions, or withdrawals, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that offers or revisions are due.

(2) (i) Any offer, modification, revision, or withdrawal of an offer received at the Government office designated in the solicitation after the exact time specified for receipt of offers is ``late'' and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and--

(A) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of offers; or

(B) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or

(C) If this solicitation is a request for proposals, it was the only proposal received.

(ii) However, a late modification of an otherwise successful offer, that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(3) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the offer wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(4) If an emergency or unanticipated event interrupts normal Government processes so that offers cannot be received at the Government office designated for receipt of offers by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation or other notice of an extension of the closing date, the time specified for receipt of offers will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(5) Offers may be withdrawn by written notice received at any time before the exact time set for receipt of offers. Oral offers in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile offers, offers may be withdrawn via facsimile received at any time

before the exact time set for receipt of offers, subject to the conditions specified in the solicitation concerning facsimile offers. An offer may be withdrawn in person by an offeror or its authorized representative if, before the exact time set for receipt of offers, the identity of the person requesting withdrawal is established and the person signs a receipt for the offer.

(g) *Contract award (not applicable to Invitation for Bids).* The Government intends to evaluate offers and award a contract without discussions with offerors. Therefore, the offeror's initial offer should contain the offeror's best terms from a price and technical standpoint. However, the Government reserves the right to conduct discussions if later determined by the Contracting Officer to be necessary. The Government may reject any or all offers if such action is in the public interest; accept other than the lowest offer; and waive informalities and minor irregularities in offers received.

(h) *Multiple awards.* The Government may accept any item or group of items of an offer, unless the offeror qualifies the offer by specific limitations. Unless otherwise provided in the Schedule, offers may not be submitted for quantities less than those specified. The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit prices offered, unless the offeror specifies otherwise in the offer.

(i) *Availability of requirements documents cited in the solicitation.*
 (1)(i) The GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, FPMR Part 101-29, and copies of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained for a fee by submitting a request to--

GSA Federal Supply Service Specifications Section,
 Suite 8100,
 470 East L'Enfant Plaza, SW, Washington, DC 20407,
 Telephone (202) 619-8925,
 Facsimile (202) 619-8978.

(ii) If the General Services Administration, Department of Agriculture, or Department of Veterans Affairs issued this solicitation, a single copy of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained free of charge by submitting a request to the addressee in paragraph (i)(1)(i) of this provision. Additional copies will be issued for a fee.

(2) The DoD Index of Specifications and Standards (DoDISS) and documents listed in it may be obtained from the--

Department of Defense Single Stock Point (DoDSSP),
 Building 4, Section D,
 700 Robbins Avenue,
 Philadelphia, PA 19111-5094,
 Telephone (215) 697- 2667/2179,
 Facsimile (215) 697-1462.

(i) Automatic distribution may be obtained on a subscription basis.

(ii) Order forms, pricing information, and customer support information may be obtained--

(A) By telephone at (215) 697-2667/2179; or

(B) Through the DoDSSP Internet site at <http://dodssp.daps.mil>.

(3) Nongovernment (voluntary) standards must be obtained from the organization responsible for their preparation, publication, or maintenance.

(j) *Data Universal Numbering System (DUNS) Number.* (Applies to all offers exceeding \$25,000, and offers of \$25,000 or less if the solicitation requires the Contractor to be registered in the Central Contractor Registration (CCR) database. The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" or "DUNS +4" followed by the DUNS or DUNS +4 number that identifies the offeror's name and address. The DUNS +4 is the DUNS number plus a 4-character suffix that may be assigned at the discretion of the offeror to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see FAR Subpart 32.11) for the same parent concern. If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. An offeror within the United States may contact Dun and Bradstreet by calling 1-866-705-5711 or via the internet at <http://www.dnb.com>. An offeror located outside the United States must contact the local Dun and Bradstreet office for a DUNS number.

(k) *Central Contractor Registration.* Unless exempted by an addendum to this solicitation, by submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the CCR database prior to award, during performance and through final payment of any contract resulting from this solicitation. If the Offeror does not become registered in the CCR database in the time prescribed by the Contracting Officer, the Contracting Officer will proceed to award to the next otherwise successful registered Offeror. Offerors may obtain information on registration and annual confirmation requirements via the Internet at <http://www.ccr.gov> or by calling 1-888-227-2423 or 269-961-5757.

(l) *Debriefing.* If a post-award debriefing is given to requesting offerors, the Government shall disclose the following information, if applicable:

(1) The agency's evaluation of the significant weak or deficient factors in the debriefed offeror's offer.

(2) The overall evaluated cost or price and technical rating of the successful and the debriefed offeror and past performance information on the debriefed offeror.

(3) The overall ranking of all offerors, when any ranking was developed by the agency during source selection.

(4) A summary of the rationale for award;

(5) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.

(6) Reasonable responses to relevant questions posed by the debriefed offeror as to whether source-selection procedures set forth in the solicitation, applicable regulations, and other applicable authorities were followed by the agency.

C.2 EVALUATION -- COMMERCIAL ITEMS (FAR 52.212-2) (JAN 1999)

(a) The Government will award a contract resulting from this solicitation to the responsible offeror whose offer conforming to the solicitation will be most advantageous to the Government, price and other factors considered. For this solicitation, all evaluation factors other than cost or price when combined are significantly more important than cost or price.

(b) The technical evaluation criteria are listed below. The instructions in FAR 52.212-1, paragraph (b) (10) are hereby incorporated by reference into the technical evaluation criteria.

1. PAST PERFORMANCE

The Offeror's past performance will be evaluated based on information provided in its proposal and on information obtained from the Offeror's supplied references for each of the following equally important criteria: quality of products or services, timeliness of performance, effectiveness of management, initiative in meeting requirements, responsiveness to performance problems, customer satisfaction and overall performance.

Offerors with no relevant past performance history, or for whom information on past performance is not available, will be evaluated neither favorably nor unfavorably on past performance.

2. TECHNICAL PERFORMANCE

The performance of the radiation detector system proposed in each offer will be graded on a scale of one to five, for each of eight separate parameters. The total possible score is 40.

Offers will be evaluated according to the following schedule:

1. Energy resolution, FWHM, at 59.54 KeV:

< 0.8 KeV	- 5 points
0.8-2 KeV	- 4 points
2 - 5 KeV	- 3 points
5 - 10 KeV	- 2 points
10-15 KeV	- 1 point
> 15 KeV	- 0 points
2. Absolute full-energy peak counting efficiency at 60 KeV:

> 3%	- 5 points
2 - 3%	- 4 points
1 - 2%	- 3 points
0.50 - 1.0%	- 2 points
0.25 - 0.5%	- 1 point
< 0.25%	- 0 points

3. Energy resolution, FWHM, at 662 KeV:
 - < 5 KeV - 5 points
 - 5 - 15 KeV - 4 points
 - 15 - 25 KeV - 3 points
 - 25 - 40 KeV - 2 points
 - 40 - 60 KeV - 1 point
 - > 60 KeV - 0 points
4. Absolute full-energy peak counting efficiency at 662 KeV:
 - > 0.2% - 5 points
 - 0.15 - 0.2% - 4 points
 - 0.1 - 0.15% - 3 points
 - 0.05 - 0.1% - 2 points
 - 0.001 - 0.05% - 1 point
 - < 0.001% - 0 points
5. Energy resolution, FWHM, at 1173 KeV:
 - < 5 KeV - 5 points
 - 5 - 15 KeV - 4 points
 - 15 - 25 KeV - 3 points
 - 25 - 40 KeV - 2 points
 - 40 - 60 KeV - 1 point
 - > 60 KeV - 0 points
6. Absolute full-energy peak counting efficiency at 1173 KeV:
 - > 0.2% - 5 points
 - 0.15 - 0.2% - 4 points
 - 0.1 - 0.15% - 3 points
 - 0.05 - 0.1% - 2 points
 - 0.001 - 0.05% - 1 point
 - < 0.001% - 0 points
7. Energy resolution, FWHM, at 1836 KeV:
 - < 5 KeV - 5 points
 - 5 - 15 KeV - 4 points
 - 15 - 25 KeV - 3 points
 - 25 - 40 KeV - 2 points
 - 40 - 60 KeV - 1 point
 - > 60 KeV - 0 points
8. Absolute full-energy peak counting efficiency at 1836 KeV:
 - > 0.2% - 5 points
 - 0.15 - 0.2% - 4 points
 - 0.1 - 0.15% - 3 points
 - 0.05 - 0.1% - 2 points
 - 0.001 - 0.05% - 1 point
 - < 0.001% - 0 points

(b) *Options*. The Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. The Government may determine that an offer is unacceptable if the option prices are significantly unbalanced. Evaluation of options shall not obligate the Government to exercise the option(s).

(c) A written notice of award or acceptance of an offer, mailed or otherwise

furnished to the successful offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.

C.3 OFFEROR REPRESENTATIONS AND CERTIFICATIONS -- COMMERCIAL ITEMS (FAR 52.212-3) (MAY 2004)

(a) *Definitions.* As used in this provision:

"Emerging small business" means a small business concern whose size is no greater than 50 percent of the numerical size standard for the NAICS code designated.

"Forced or indentured child labor" means all work or service-

(1) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or

(2) Performed by any person under the age of 18 pursuant to a contract the enforcement of which can be accomplished by process of penalties.

"Service-disabled veteran-owned small business concern"-

(1) Means a small business concern-

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standards in this solicitation.

"Veteran-owned small business concern" means a small business concern-

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or

more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned business concern" means a concern which is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

"Women-owned small business concern" means a small business concern --

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(b) *Taxpayer identification number (TIN) (26 U.S.C. 6109, 31 U.S.C. 7701).* (Not applicable if the offeror is required to provide this information to a central contractor registration database to be eligible for award.)

(1) All offerors must submit the information required in paragraphs (b) (3) through (b) (5) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the Internal Revenue Service (IRS).

(2) The TIN may be used by the government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c) (3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.]

(3) Taxpayer Identification Number (TIN).

[] TIN:_____.

[] TIN has been applied for.

[] TIN is not required because:

[] Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

[] Offeror is an agency or instrumentality of a foreign government;

[] Offeror is an agency or instrumentality of the Federal Government;

(4) Type of organization.

- ☐ Sole proprietorship;
- ☐ Partnership;
- ☐ Corporate entity (not tax-exempt);
- ☐ Corporate entity (tax-exempt);
- ☐ Government entity (Federal, State, or local);
- ☐ Foreign government;
- ☐ International organization per 26 CFR 1.6049-4;
- ☐ Other _____.

(5) Common parent.

- ☐ Offeror is not owned or controlled by a common parent:
- ☐ Name and TIN of common parent:

Name _____

TIN _____

(c) Offerors must complete the following representations when the resulting contract will be performed in the United States or its outlying areas. Check all that apply.

(1) *Small business concern.* The offeror represents as part of its offer that it ☐ is, ☐ is not a small business concern.

(2) *Veteran-owned small business concern.* [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents as part of its offer that it ☐ is, ☐ is not a veteran-owned small business concern.

(3) *Service-disabled veteran-owned small business concern.* [Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(2) of this provision.] The offeror represents as part of its offer that it ☐ is, ☐ is not a service-disabled veteran-owned small business concern.

(4) *Small disadvantaged business concern.* [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents, for general statistical purposes, that it ☐ is, ☐ is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.

(5) *Women-owned small business concern.* [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this

provision.] The offeror represents that it ☐ is, ☐ is not a women-owned small business concern.

Note: Complete paragraphs (c)(6) and (c)(7) only if this solicitation is expected to exceed the simplified acquisition threshold.

(6) *Women-owned business concern (other than small business concern).* *[Complete only if the offeror is a women-owned business concern and did not represent itself as a small business concern in paragraph (c)(1) of this provision.]* The offeror represents that it ☐ is, a women-owned business concern.

(7) *Tie bid priority for labor surplus area concerns.* If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price:

(8) Small Business Size for the Small Business Competitiveness Demonstration Program and for the Targeted Industry Categories under the Small Business Competitiveness Demonstration Program. *[Complete only if the offeror has represented itself to be a small business concern under the size standards for this solicitation.]*

(i) *[Complete only for solicitations indicated in an addendum as being set-aside for emerging small businesses in one of the four designated industry groups (DIGs).]* The offeror represents as part of its offer that it ☐ is, ☐ is not an emerging small business.

(ii) *[Complete only for solicitations indicated in an addendum as being for one of the targeted industry categories (TICs) or four designated industry groups (DIGs).]* Offeror represents as follows:

(A) Offeror's number of employees for the past 12 months (check the Employees column if size standard stated in the solicitation is expressed in terms of number of employees); or

(B) Offeror's average annual gross revenue for the last 3 fiscal years (check the Average Annual Gross Number of Revenues column if size standard stated in the solicitation is expressed in terms of annual receipts).

(Check one of the following):

Number of Employees	Average Annual Gross Revenues
<input type="checkbox"/> 50 or fewer	<input type="checkbox"/> \$1 million or less
<input type="checkbox"/> 51-100	<input type="checkbox"/> \$1,000,001-\$2 million
<input type="checkbox"/> 101-250	<input type="checkbox"/> \$2,000,001-\$3.5 million
<input type="checkbox"/> 251-500	<input type="checkbox"/> \$3,500,001-\$5 million
<input type="checkbox"/> 501-750	<input type="checkbox"/> \$5,000,001-\$10 million
<input type="checkbox"/> 751-1,000	<input type="checkbox"/> \$10,000,001-\$17 million
<input type="checkbox"/> Over 1,000	<input type="checkbox"/> Over \$17 million

(9) *[Complete only if the solicitation contains the clause at FAR 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns, or FAR 52.219-25, Small Disadvantaged Business Participation Program-Disadvantaged Status and Reporting, and the offeror desires a benefit based on its disadvantaged status.]*

(i) *General.* The offeror represents that either-

(A) It ☐ is, ☐ is not certified by the Small Business Administration as a small disadvantaged business concern and identified, on the date of this representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net), and that no material change in disadvantaged ownership and control has occurred since its certification, and, where the concern is owned by one or more individuals claiming disadvantaged status, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); or

(B) It ☐ has, ☐ has not submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(ii) ☐ *Joint Ventures under the Price Evaluation Adjustment for Small Disadvantaged Business Concerns.* The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements in 13 CFR 124.1002(f) and that the representation in paragraph (c)(9)(i) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. *[The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: _____.]*

(10) *HUBZone small business concern.* *[Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.]* The offeror represents, as part of its offer, that--

(i) It ☐ is, ☐ is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It ☐ is, ☐ is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (c)(10)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. *[The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: _____.]* Each

HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(d) *Representations required to implement provisions of Executive Order 11246* --(1) Previous contracts and compliance. The offeror represents that --

(i) It []has, []has not, participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation; and

(ii) It []has, []has not, filed all required compliance reports.

(2) Affirmative Action Compliance. The offeror represents that --

(i) It []has developed and has on file, []has not developed and does not have on file, at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR parts 60-1 and 60-2), or

(ii) It []has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(e) *Certification Regarding Payments to Influence Federal Transactions (31 U.S.C. 1352)*. (Applies only if the contract is expected to exceed \$100,000.) By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract.

(f) *Buy American Act Certificate*. (Applies only if the clause at Federal Acquisition Regulation (FAR) 52.225-1, Buy American Act--Supplies, is included in this solicitation.)

(1) The offeror certifies that each end product, except those listed in paragraph (f) (2) of this provision, is a domestic end product and that the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The offeror shall list as foreign end products those end products manufactured in the United States that do not qualify as domestic end products. The terms "component," "domestic end product," "end product," "foreign end product," and "United States" are defined in the clause of this solicitation entitled "Buy American Act--Supplies."

(2) Foreign End Products:

LINE ITEM NO.	COUNTRY OF ORIGIN
_____	_____
_____	_____
_____	_____

[List as necessary]

(3) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(g) (1) *Buy American Act - Free Trade Agreement -- Israeli Trade Act Certificate.* (Applies only if the clause at FAR 52.225-3, Buy American Act - Free Trade Agreement Israeli Trade Act, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g) (1) (ii) or (g) (1) (iii) of this provision, is a domestic end product and that the offeror has considered components of unknown origin to have been mined, produced, or manufactured outside the United States. The terms "component," "domestic end product," "end product," "foreign end product," and "United States" are defined in the clause of this solicitation entitled "Buy American Act--Free Trade Agreement--Israeli Trade Act."

(ii) The offeror certifies that the following supplies are FTA country end products or Israeli end products as defined in the clause of this solicitation entitled "Buy American Act-Free Trade Agreement-Israeli Trade Act":

FTA Country or Israeli End Products:

LINE ITEM NO.	COUNTRY OF ORIGIN
_____	_____
_____	_____
_____	_____

[List as necessary]

(iii) The offeror shall list those supplies that are foreign end products (other than those listed in paragraph (g) (1) (ii) or this provision) as defined in the clause of this solicitation entitled "Buy American Act-Free Trade Agreement-Israeli Trade Act." The offeror shall list as other foreign end products those end products manufactured in the United States that do not qualify as domestic end products.

Other Foreign End Products:

LINE ITEM NO.	COUNTRY OF ORIGIN
_____	_____
_____	_____
_____	_____

[List as necessary]

(iv) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25.

(2) *Buy American Act--Free Trade Agreements--Israeli Trade Act Certificate, Alternate I (Jan 2004)*. If Alternate I to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g) (1) (ii) for paragraph (g) (1) (ii) of the basic provision:

(g) (1) (ii) The offeror certifies that the following supplies are Canadian end products as defined in the clause of this solicitation entitled "Buy American Act--Free Trade Agreement--Israeli Trade Act":

Canadian End Products:

Line Item No.

(List as necessary)

(3) *Buy American Act--Free Trade Agreements--Israeli Trade Act Certificate, Alternate II (Jan 2004)*. If Alternate II to the clause at FAR 52.225-3 is included in this solicitation, substitute the following paragraph (g) (1) (ii) for paragraph (g) (1) (ii) of the basic provision:

(g) (1) (ii) The offeror certifies that the following supplies are Canadian end products or Israeli end products as defined in the clause of this solicitation entitled ``Buy American Act-- Free Trade Agreement-Israeli Trade Act'':

Canadian or Israeli End Products:

LINE ITEM NO.

COUNTRY OF ORIGIN

<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

[List as necessary]

(4) *Trade Agreements Certificate*. (Applies only if the clause at FAR 52.225-5, *Trade Agreements*, is included in this solicitation.)

(i) The offeror certifies that each end product, except those listed in paragraph (g) (4) (ii) of this provision, is a U.S.-made, designated country, Caribbean Basin country, or FTA country end product, as defined in the clause of this solicitation entitled "Trade Agreements."

(ii) The offeror shall list as other end products those end products that are not U.S.-made, designated country, Caribbean Basin country, or FTA country end products.

Other End Products

LINE ITEM NO.	COUNTRY OF ORIGIN
_____	_____
_____	_____
_____	_____

[List as necessary]

(iii) The Government will evaluate offers in accordance with the policies and procedures of FAR Part 25. For line items subject to the Trade Agreements Act, the Government will evaluate offers of U.S.-made, designated country, Caribbean Basin country, or FTA country end products without regard to the restrictions of the Buy American Act. The Government will consider for award only offers of U.S.-made, designated country, Caribbean Basin country, or FTA country end products unless the Contracting Officer determines that there are no offers for such products or that the offers for such products are insufficient to fulfill the requirements of the solicitation.

(h) *Certification Regarding Debarment, Suspension or Ineligibility for Award (Executive Order 12549)*. (Applies only if the contract value is expected to exceed the simplified acquisition threshold.) The offeror certifies, to the best of its knowledge and belief, that the offeror and/or any of its principals--

(1) []Are, []are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency; and

(2) []Have, []have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(3) []Are, []are not presently indicted for, or otherwise criminally or civilly charged by a Government entity with, commission of any of these offenses.

(i) *Certification Regarding Knowledge of Child Labor for Listed End Products (Executive Order 13126)*. [The Contracting Officer must list in paragraph (i)(1) any end products being acquired under this solicitation that are included in the List of Products Requiring Contractor Certification as to Forced or Indentured Child Labor, unless excluded at 22.1503(b).]

(1) *Listed End Product*

Listed End Product

Listed Countries of Origin:

(2) Certification. [If the Contracting Officer has identified end products and countries of origin in paragraph (i)(1) of this provision, then the offeror must certify to either (i)(2)(i) or (i)(2)(ii) by checking the appropriate block.]

☐ (i) The offeror will not supply any end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product.

☐ (ii) The offeror may supply an end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product. The offeror certifies that it has made a good faith effort to determine whether forced or indentured child labor was used to mine, produce, or manufacture any such end product furnished under this contract. On the basis of those efforts, the offeror certifies that it is not aware of any such use of child labor.

C.4 STATEMENT OF WORK--CONTRACT WHERE WORK IS ORDERED BY WORK ASSIGNMENTS OR DELIVERY ORDERS (EP 52.210-110) (APR 1984)

The Contractor shall furnish the necessary personnel, material, equipment, services and facilities (except as otherwise specified), to perform the Statement of Work/Specifications included in Attachment 1.

The Contractor shall perform work under this contract only as directed in Task Orders issued by the Contracting Officer.

SECTION D - PACKAGING AND MARKING

[For this Solicitation, there are NO clauses in this Section]

SECTION E - INSPECTION AND ACCEPTANCE

[For this Solicitation, there are NO clauses in this Section]

SECTION F - DELIVERIES OR PERFORMANCE**F.1 TIME OF DELIVERY (FAR 52.211-8) (JUN 1997) ALTERNATE III (APR 1984)**

The Contractor shall produce and supply one pilot monitoring station (first article), shipped FOB Destination to EPA NAREL, Montgomery AL, in accordance with the Statement of Work, Section C, Monitoring Station Component Specifications within 120 days after contract award.

At the time of contract award, the Government will issue a delivery order for Items 0001AA through 0001AG with the following schedule:

REQUIRED DELIVERY SCHEDULE

ITEM	QUANTITY	WITHIN DAYS AFTER ISSUANCE OF DELIVERY ORDER
0001	1	120 days
0001AA	59	5 each every 30 days, beginning with the first shipment of 5 to be received within 60 days from the date of acceptance of the first article
0001AB	59	5 each every 30 days, beginning with the first shipment of 5 to be received within 60 days from the date of acceptance of the first article
0001AC	5	60 days from the date of acceptance of the first article
0001AD	2	60 days from the date of acceptance of the first article
0001AE	1	within 60 days from the date of acceptance of the first article

The Government will evaluate equally offers that propose delivery of each quantity within the applicable delivery period specified above. Offers that propose delivery that will not clearly fall within the applicable required delivery period specified above will be considered non-responsive and rejected. The Government reserves the right to award under either the required delivery schedule or the proposed delivery schedule, when an offeror offers an earlier delivery schedule than required above. If the offeror proposes no other delivery schedule, the required delivery schedule above will apply.

OFFEROR'S PROPOSED DELIVERY SCHEDULE

ITEM	QUANTITY	WITHIN DAYS
		AFTER ISSUANCE OF DELIVERY ORDER
F.2	EFFECTIVE PERIOD OF CONTRACT--TIME AND MATERIALS, LABOR HOUR, OR INDEFINITE DELIVERY/INDEFINITE QUANTITY CONTRACT (EP 52.212-155) (APR 1984)	

The effective period of this contract is from _____ through _____.

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 CONTRACT ADMINISTRATION REPRESENTATIVES (EP 52.242-100) (AUG 1984)

Project Officer(s) for this contract:

Project Officer:

TO BE IDENTIFIED AT TIME OF CONTRACT AWARD

Contract Specialist(s) responsible for administering this contract:

Administrative Contracting Officer:

TO BE IDENTIFIED AT TIME OF CONTRACT AWARD

SECTION H - SPECIAL CONTRACT REQUIREMENTS**H.1 OPTION TO EXTEND THE EFFECTIVE PERIOD OF THE CONTRACT-- INDEFINITE DELIVERY/INDEFINITE QUANTITY CONTRACT (EPAAR 1552.217-76) (APR 1984) DEVIATION**

(a) The Government has the option to extend the effective period of this contract for four additional periods. If more than 60 days remain in the contract effective period, the Government, without prior written notification, may exercise this option by issuing a contract modification. To unilaterally exercise this option within the last 60 days of the effective period, the Government must issue written notification of its intent to exercise the option prior to that last 60-day period. This preliminary notification does not commit the Government to exercising the option.

(b) If the options are exercised, the "Minimum and Maximum Contract Amount" clause will be modified to reflect new and separate maximum amounts:

(c) The "Effective Period of the Contract" clause will be modified as follows:

<u>Period</u>	<u>Start Date</u>	<u>End Date</u>
Option Period I		
Option Period II		
Option Period III		
Option Period IV		

PART II - CONTRACT CLAUSES**SECTION I - CONTRACT CLAUSES****I.1 FIRST ARTICLE APPROVAL--GOVERNMENT TESTING (FAR 52.209-4) (SEP 1989)**

(a) The Contractor shall deliver one unit of Item 0001, Fixed Station Air and Radiation Monitoring System within 120 days from contract award to the Government at EPA NAREL, Montgomery, AL for first article tests. The characteristics that the first article must meet and the testing requirements are specified in Section C of the Statement of Work.

(b) Within 30 calendar days after the Government receives the first article, the Contracting Officer will notify the Contractor, in writing, of the conditional approval, approval, or disapproval of the first article. The notice of conditional approval or approval shall not relieve the Contractor from complying with all requirements of the specifications and all other terms and conditions of this contract. A notice of conditional approval shall state any further action required of the Contractor. A notice of disapproval shall cite reasons for the disapproval.

(c) If the first article is disapproved, the Contractor, upon Government request, shall submit an additional first article for testing. After each request, the Contractor shall make any necessary changes, modifications, or repairs to the first article or select another first article for testing. All costs related to these tests are to be borne by the Contractor, including any and all costs for additional tests following a disapproval. The Contractor shall furnish any additional first article to the Government under the terms and conditions and within the time specified by the Government. The Government will act on this first article within the time limit specified in paragraph (b) above. The Government reserves the right to require an equitable adjustment of the contract price for any extension of the delivery schedule or for any additional costs to the Government related to these tests.

(d) If the Contractor fails to deliver any first article on time, or the Contracting Officer disapproves any first article, the Contractor shall be deemed to have failed to make delivery within the meaning of the Default clause of this contract.

(e) If the Government does not act within the time specified in paragraph (b) or (c) above, the Contracting Officer shall, upon timely written request from the Contractor, equitably adjust under the Changes clause of this contract the delivery or performance dates and/or the contract price, and any other contractual term affected by the delay.

(f) The Contractor is responsible for providing operating and maintenance instructions, spare parts support, and repair of the first article during any first article test.

(g) Before first article approval, the acquisition of materials or

components for, or the commencement of production of, the balance of the contract quantity is at the sole risk of the Contractor. Before first article approval, the costs thereof shall not be allocable to this contract for (1) progress payments, or (2) termination settlements if the contract is terminated for the convenience of the Government.

(h) The Government may waive the requirement for first article approval test where supplies identical or similar to those called for in the schedule have been previously furnished by the Offeror/Contractor and have been accepted by the Government. The Offeror/Contractor may request a waiver.

(i) The prototype monitoring station will be tested by EPA to verify that component specifications have been met, and that the monitoring station together with its accessories are capable of being used as intended. When received by EPA, the monitoring station will be unpackaged and installed in accordance with the installation and maintenance manual. The air sampler will then be operated at varying flow rates and varying filter loadings, and under varying environmental conditions (temperature, humidity, radon daughter concentrations). The monitor may be moved and re-installed during the testing period to a high-altitude location (approximately 10,000 feet above mean sea level), and/or multiple other locations, as deemed appropriate by EPA to verify that it operates properly under the expected range of operating conditions normally encountered throughout the United States and its territories. All of the redundant communication methods will be tested in conjunction with the remote user interface and control software. Radiation sources will be used during testing to verify that required minimum detectable activities are met at varying ambient radon daughter concentrations.

The adequacy of the operator's manual and training video will be assessed by presenting these materials to an individual with a scientific/technical background, but with no experience in operating air monitoring equipment, then assignment them to perform routine operation of the station. This test will include performing at least one calibration using the accessory calibration kit, via telemetry. Adequacy of the installation and maintenance manual will be assessed by performing all of the routine maintenance actions described in the manual. In addition, troubleshooting and repair of any component failures that occur during the testing will be performed in accordance with the manual.

I.2 ORDERING (FAR 52.216-18) (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from the effective date of the contract through contract expiration.

(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.

(c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

I.3 INDEFINITE QUANTITY (FAR 52.216-22) (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after 90 days beyond the expiration date of the contract.

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

[For this Solicitation, there are NO clauses in this Section]

PART IV - REPRESENTATIONS AND INSTRUCTIONS

SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS

[For this Solicitation, there are NO clauses in this Section]

SECTION L - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

[For this Solicitation, there are NO clauses in this Section]

SECTION M - EVALUATION FACTORS FOR AWARD

[For this Solicitation, there are NO clauses in this Section]

ATTACHMENT 1

FIXED AIR MONITORING STATIONS

FIXED STATION AIR AND RADIATION MONITORING SYSTEM**A. INTENDED USE**

The United States Environmental Protection Agency's Office of Radiation and Indoor Air (ORIA) is conducting upgrades to its Environmental Radiation Ambient Monitoring System. As part of this capabilities upgrade, the EPA requires complete operable radiation monitoring stations. The stations will be installed at fixed outdoor locations in metropolitan areas, where they will continuously collect particulate matter in ambient air on fixed filters. Station operators will be trained only to perform basic operations, primarily starting and stopping the air sampler to change filters. At most locations, there will not be a mechanical or instrument technician available to troubleshoot or correct problems.

During normal conditions, filters will be changed approximately twice a week by a local operator, and mailed to a laboratory for analysis. During sample collection, the monitoring station will continuously monitor the filter for accumulation of radioactive material. The radiation measurements will be stored by the monitoring station and transmitted, both automatically or on demand, via redundant communications systems that are integral to the monitoring station, to the EPA National Air and Radiation Environmental Laboratory (NAREL), in Montgomery, AL. When necessary, the NAREL will remotely connect with one or more monitoring stations to initiate transfer of additional data and/or to modify operating parameters.

The monitoring stations will be periodically re-calibrated in their installed location. Calibration will be accomplished by sending a calibration "kit" containing transfer standards and all other necessary equipment to the station operator. Acquisition of calibration data and any necessary adjustments will be made by remote interface via telemetry by an instrumentation technician, who will coordinate by telephone with the station operator. The station operator will assist by placing and removing standards and accessory equipment, taken from the calibration kit, as directed by the instrumentation technician.

B. MONITORING STATION GENERAL SPECIFICATIONS

The Contractor shall provide a prototype of an integrated operable radiation monitoring station and accessory equipment in accordance with the specifications described below:

The prototype monitoring station (first article) shall consist of:

- a high-volume air sampler that draws air through a 4" diameter fixed polyester sample collection filter, with instrumentation for measuring sample air volumetric flow rate and total flow;
- instrumentation for measuring ambient air temperature and barometric pressure;
- instrumentation for measuring gamma and beta radiation emanating from particles collected on the air filter media;
- a real time clock/timer/controller sub-system;
- an operator interface and control sub-system;
- a computational unit capable of performing limited calculations and unit conversions on instrument outputs;
- a data logger that continuously records and stores data from the instrumentation and air sampler;
- a telemetry system with redundant telecommunications capabilities;
- an environmental enclosure that houses and distributes electrical power for all of the above equipment;
- a telescoping mast that attaches externally to the environmental enclosure, with provisions for mounting telecommunications antennas and optional wind speed and direction instruments;
- instrumentation for measuring wind velocity and direction; and
- draft monitoring station documentation.

All of the above components shall be fully integrated to complement and inter-operate with the other components, without unnecessary redundancy. The listing of components in the specifications is only for purposes of associating requirements to functions and is not intended to discourage innovative approaches. Single components that combine the functions of two or more components listed in the specifications are permissible, provided that all of the required functions are provided and all other specifications are fully met.

The accessory equipment to be provided with the prototype monitoring station shall include:

- one monitoring station calibration kit,
- one copy of remote user interface and control software,
- one draft training video for the monitoring station.

The first article shall be built solely for the purpose of testing to determine satisfactory compliance with acceptance criteria. This station will be operated by the EPA for no less than ten days and a maximum of 30 days, unless the system has not satisfied all of the testing and acceptance criteria as specified by the EPA.

The Contractor shall update or modify the first article, including all

training videos, manuals, and system and component software as necessary to correct any deficiencies identified during acceptance testing, at no additional cost to the EPA.

C. MONITORING STATION COMPONENT SPECIFICATIONS

C.1 General Requirements Applicable to All Components.

C.1.1 Range of operational conditions. All monitoring station components are required to operate properly and meet all requirements specified over the following operational ranges.

- a. Ambient temperature. -30 to +45 degrees C.
- b. Ambient relative humidity. 0 to 100 percent.
- c. Barometric pressure range. 600 to 800 mm Hg.

C.1.2 Electrical power supply.

- a. The monitoring station shall be operable and function as specified herein when operated on an electrical power supply voltage of 105 to 125 volts AC (RMS) at a frequency of 59 to 61 Hz. Optional operation as specified at additional power supply voltages and/or frequencies shall not be precluded by this requirement.
- b. The maximum transient current for all components combined shall not exceed 15 amps, and maximum steady state current shall not exceed 10 amps.
- c. The design and construction of the monitoring station shall comply with all applicable National Electrical Code and Underwriters Laboratories electrical safety requirements; however, certification by Underwriters

Laboratories is not required.

- d. The design of all electrical and electronic controls shall be such as to provide reasonable resistance to interference or malfunction from ordinary or typical levels of stray electromagnetic fields (EMF) as may be found at various monitoring sites and from typical levels of electrical transients or electronic noise as may often or occasionally be present on various electrical power lines, including transients typically induced by lightning.
- e. An Uninterruptible Power Supply (UPS) shall be provided for all components except the high volume air sampler motor. The capacity of the UPS shall be adequate to provide power for at least one hour.

C.1.3 Electronic Data Processing.

- a. The platforms for all components that use any form of electronic data processing shall be consistent with the Federal Enterprise Architecture Technical Reference Model, Version 1.1, of August 2003 (available at http://www.feapmo.gov/resources/fea_trm_release_document_rev_1.1.pdf). This requirement applies to wireless communications, data processing and storage, and system software development.
- b. All system and component software and firmware shall be upgradeable. Mechanisms for configuration control (security) shall be present in all software supplied and shall be described in documentation.
- c. The source code for all software or firmware shall either be provided on electronic media, or shall be escrowed (deposited in a commercial vault), with the stipulation that the source code will be released in the event the company defaults or terminates support of the code.

C.2 High-volume Air Sampler. The air sampler shall consist of a sample air inlet, filter holder assembly, air pump and flow rate control system, flow rate measurement device, and suitable mechanical, electrical, or electronic control capability to meet or exceed the design and functional performance specifications. These performance specifications require that the sampler:

- a. Provide automatic control of sample volumetric flow rate and other operational parameters.
- b. Monitor these operational parameters.
- c. Provide this information to the data logging component, either directly

or via the data processing unit, at the end of each sample period in digital form.

C.2.1 High Volume Air Sampler Design Requirements. The sampler shall be designed to:

- a. Draw the air sample into the sampler inlet and through the particle collection filter at a uniform face velocity.
- b. Hold, support, and seal the filter in a horizontal position so that sample air is drawn downward through the filter, at differential pressures up to 55 mm Hg.
- c. Hold 4 inch diameter round polyester fiber filters that are nominally 3/32 inches thick.
- d. Position the filter between 1.0 and 1.15 meters above the floor or other horizontal supporting surface.
- e. Allow the filter to be installed and removed easily and conveniently, without removal or displacement of any subsystem, except for simple hinge/latch displacement of the sampler's cover assembly.
- f. Protect the filter and sampler from precipitation, minimize the incidence of insects and other debris being sampled, and protect the filter from tampering.
- g. Minimize air leaks that would cause error in the measurement of the air volume passing through the filter.
- h. Discharge exhaust air at a sufficient distance from the sampler inlet to minimize the sampling of exhaust air.
- i. Minimize the collection of dust from the supporting surface.
- j. Facilitate calibration of the sampler's flow measurement device using a flow rate transfer standard.

C.2.2 High-volume air sampler performance specifications.

- a. Sample air flow rate control system. The sampler shall have a sample air

flow rate control system which shall be capable of providing a sample air volumetric flow rate within the range of 35 to 75 cubic meters per minute. The flow control system shall provide for operator adjustment of the flow rate of the sampler over the specified range.

- b. Sample flow rate regulation. The sample flow rate shall be regulated such that at any conditions specified in section C.1.1 of this specification, at a filter pressure drop that ranges from 15 mm Hg (clean filter at 35 cubic meters per minute) to 50 mm Hg (fully loaded filter at 75 cubic meters per minute), and over the range of supply line voltage specified in section C.1.2.a of this specification, the flow rate is regulated as follows:

(1) The volumetric flow rate, measured or averaged over intervals of not more than 5 minutes, shall not vary more than ± 5 percent from the flow rate for which the sampler is programmed.

(2) The coefficient of variation (sample standard deviation divided by the mean) of the flow rate, averaged at five minute intervals over a 24-hour period, shall not be greater than 2 percent.

(3) The amplitude of short-term flow rate pulsations, such as may originate from some types of vacuum pumps, shall be attenuated such that they do not cause significant flow measurement error or affect the collection of particles on the particle collection filter.

- c. Flow rate measurement. The sampler shall provide a means to measure and indicate the instantaneous sample volumetric flow rate, which shall be corrected to Standard Temperature and Pressure (STP) using the measured ambient air temperature and barometric pressure (see Section C.3 that follows), with an accuracy of ± 5 percent. The sample flow rate, corrected to STP, shall be available for display to the sampler operator at any time in either sampling or standby modes, and the measurement shall be updated at least every five minutes. The sampler shall also provide a simple means by which the sampler operator can manually start the sample flow temporarily during non-sampling modes of operation, for the purpose of checking the sample flow rate or the flow rate measurement system.

C.3 Ambient Air Temperature and Barometric Pressure Instruments.

- C.3.1 Ambient air temperature instrument. The monitoring station shall have the capability to measure the temperature of the ambient air over the range of -30 to $+45$ degrees C, with a resolution of 0.1 degrees C and accuracy of ± 2.0 degrees C. The sensor shall be mounted in such a way that interference from wind and solar radiation is minimized. The maximum measurement error of the ambient air temperature instrument shall be less than 1.6 degrees C at 1 m/s wind speed and 1000 W/m² solar

radiation intensity. In addition, the sensor shall be of such a design and mounted in such a way as to facilitate its convenient dismounting and immersion in a liquid for calibration.

- C.3.2 Ambient barometric pressure instrument. The monitoring station shall have the capability to measure the absolute barometric pressure at the monitoring station over a range of 600 to 800 mm Hg. This barometric pressure measurement shall have a resolution of 1 mm Hg and an accuracy of ± 10 mm Hg.

C.4 Gamma and Beta Radiation Instruments. The monitoring station shall be equipped with instruments for continuously measuring beta and gamma radiation emitted from particulate matter that has collected on the sampler filter media. This function may be implemented by a single detector capable of differentiating beta and gamma radiation, or by any combination of separate detectors, provided that the performance requirements specified below are met. All detectors shall be mounted as close as possible to the filter media, but in a manner that does not significantly disrupt air flow or interfere with the routine changing of filter media.

C.4.1 Gamma radiation instrument. The gamma radiation instrument shall:

- a. Include detector(s) and pre-amplifier(s) whose output is a discrete voltage pulse for each ionizing event that occurs in the detector(s), the amplitude of which is proportional to the energy deposited in the detector(s) by the ionizing event;
- b. Include amplifier(s) or digital signal processing component(s) that shape and amplify the pre-amplifier output(s) as required to optimize performance and resolution of the measurement system;
- c. Have a useful gamma energy range of at least 50 to 2000 KeV;
- d. Include an analog-to-digital converter and multi-channel analyzer. The minimum number of memory channels in the multi-channel analyzer shall be consistent with the energy range and resolution of the detector(s), such that the photopeak with the best resolution occupies at least three contiguous memory channels;
- e. Be automatically gain stabilized by a method that does not add counts to the energy spectrum in the specified useful energy range;
- f. Store each gamma spectrum in a separate digital file in comma delimited ASCII text format. The minimum information required to be stored in each file includes the spectrum name, number of channels, acquisition start date and time (UTC), acquisition stop date and time (UTC), real time in seconds, live time in seconds, coefficients for the energy calibration equation, a minimum 64-character field for information or comments entered by the operator, and integer values corresponding to the accumulated counts in each memory channel.
- g. In the presence of background Pb-214 and Bi-214 particles on the filter media at levels varying from 300 - 30,000 pCi and with the radioactive particles uniformly distributed over the active collection area of the

filter media, have sufficient sensitivity and energy resolution to quantitatively measure the activity of the following isotopes at the specified minimum detectable activities (95% confidence level) with a counting data acquisition time of no greater than one hour:

<u>Isotope</u>	<u>Required Minimum Detectable Activity</u>
Am-241	5 nCi
Cs-137	3,000 nCi
Co-60	700 nCi
Cs-134	2,000 nCi
Ir-192	1,000 nCi
Eu-154	200 nCi
Eu-152	300 nCi

C.4.2 Beta radiation instrument.

The beta radiation instrument shall:

- a. Have an entrance window thick enough to stop 8 MeV alpha particles;
- b. Be designed to minimize response to gamma radiation.
- c. In the presence of background Pb-214 and Bi-214 particles on the filter media at levels varying from 300 - 30,000 pCi and with the radioactive particles uniformly distributed over the active collection area of the filter media, have sufficient sensitivity to quantitatively measure 200 nCi of Strontium-90 (in equilibrium with Yttrium-90) at the 95% confidence level with a counting data acquisition time of no greater than one hour;

C.5 Real-time Clock/Timer/Controller. The monitoring station shall have a programmable real-time clock/timing/control system that:

- a. Maintains and displays date and time as Coordinated Universal Time (UTC) rather than local time.
- b. Is capable of maintaining time and date, including year, month, day-of-month, hour, minute, and second to an accuracy of ± 1.0 minute per month.
- c. Provides a visual indication of the current system time, including year, month, day-of-month, hour, and minute, updated at least each minute, for operator verification.
- d. Provides for automatically reading and synchronizing with date and time information from the National Institute of Standards and Technology (NIST) WWVB radio transmitter whenever within range of that signal, and

also provides appropriate operator controls for manually setting the correct time and date. The interface for manually setting date and time shall prompt the user to enter UTC rather than local time.

- e. Determines the elapsed sample collection time for each sample, accurate to within ± 1.0 minute, measured as the time between the start of the sampling period and the termination of the sample period. This elapsed sample time shall not include periods when the sampler is inoperative due to a temporary interruption of electrical power. The date and time of the start of the sample period, and the value of the elapsed sample time for the sample period, shall be available to the operator following the end of the sample period.
- f. In the event of temporary loss of electrical supply power, maintains its time and date setting within ± 1 minute per week for at least seven days without electrical supply power. When electrical power is interrupted during a sample period, the controller shall automatically re-start the sampler, as well as the acquisition of counts by the radiation detector(s), when electrical power is restored.
- g. Provides for operator-programmable intervals and durations for data acquisition by the radiation detectors, and for automatic transmittal of data from the data logging component via the telemetry component. The interval and duration programming shall be identical for all radiation detectors, but the interval for data transmittal shall be independently programmable from the intervals for radiation detector data acquisition.
- h. Whenever the high volume air sampler is stopped by the operator, automatically stops data acquisition by the radiation detectors, stores the data acquired up to the time that the air sampler was stopped, then re-initializes (re-boots) the data processing component.
- i. Whenever the high volume air sampler is started by the operator, automatically starts data acquisition by the radiation detectors.
- j. Provides for radiation detector data acquisition and storage without the air sampler running (required for calibration of the radiation detectors).

C.6 Interface and Control.

C.6.1 Local interface and control.

- a. General requirements. Operator-accessible controls, data displays, and interface devices shall be designed to be simple, straightforward, reliable, and easy to learn, read, and operate under field conditions. All displays shall be easily readable in direct sunlight. The monitoring station shall have provision for operator input and storage of up to 64 characters of alphanumeric data for purposes of site, sampler, and sample identification. This information shall be available to the sampler operator for verification and change, for storage by the data logger, and for output via telemetry. All data required to be available to the operator following a sample collection period or obtained while in standby during a post-sampling period shall be retained by the monitoring station until reset manually by the operator.

- b. The monitoring station shall provide an operator-accessible local display of the following, both during sampling and after completion of a sampling period (such as during filter change):
 - Current date and time (UTC);
 - Current ambient temperature in degrees Celsius, absolute barometric pressure in mmHg, wind speed in meters per second, and wind direction in degrees;
 - Current air sampler flow rate in Standard Liters per minute or Standard cubic meters per minute, integrated flow in Standard cubic meters, and date and time (UTC) that the current sample collection began and, if applicable, date and time when it ended and the integrated flow when collection ended;
 - Current beta instrument output in counts per minute; and
 - Current gamma instrument output for each Region of Interest in counts per minute.
- c. The monitoring station shall provide operator-accessible controls for the following:
 - Manually setting the system clock;
 - Starting and stopping the air sampler; and
 - Changing the programmed air sampler flow rate.

C.6.2 Remote interface and control. The monitoring station shall provide for remote user interface and control via the telemetry system for the following:

- Remotely displaying all parameters listed above in C.6.1 b.;
- Energy and efficiency calibration of the gamma radiation detector sub-system;
- Changing the starting and ending channel assignments for each Region of Interest;
- Changing the time interval for accumulation of gamma and beta counts, either as live time or as real time;
- Transferring stored gamma spectra files and any and all other data records stored in the data logger, for user-specified time intervals;
- Changing the time interval and default method for routine data transmissions;
- Calibration of the air flow measuring system, and ambient air temperature and barometric pressure instruments; and
- Energy and efficiency calibration of the gamma radiation instruments; and
- Efficiency calibration of the beta radiation instrument.

C.7 Data Processing Unit. The monitoring station shall be provided with the components necessary to perform calculations, unit conversions, etc. on raw data inputs from other components in order for the monitoring station to provide output data in the desired formats:

--Absolute barometric pressure and ambient temperature shall be used to correct the measured volumetric flow rate to Standard Temperature and Pressure (STP) conditions, such that sample flow rates and integrated total flow for the sample period are displayed locally, stored in the data logger, and transmitted in units corrected to STP;

--Flow rate measurements shall be integrated to determine the total sample flow for each sampling event, and for each interval of radiation instrument data acquisition.

--For each gamma radiation spectrum, the counts accumulated in at least ten separate user-definable Regions of Interest (ROIs) shall be integrated, then divided by either the live or real time (user-definable) to determine the count rate in counts per minute for each ROI.

--For each completed counting interval for the beta radiation instrument, the count rate in counts per minute shall be determined.

C.8 Data Logger. The monitoring station shall be equipped with a component that stores data in non-volatile memory as follows:

C.8.1 Data shall be stored with a first in, first out protocol, such that the most recent records are always available and the oldest records are overwritten if necessary.

C.8.2 The following data shall be stored for at least the most recent 599 radiation instrument data acquisition intervals:

- a. The date and time (UTC) that acquisition began and ended;
- b. Real time and live time for data acquisition in seconds;
- c. The beta count rate;
- d. The count rate for each gamma ROI;
- e. The total volume of air that has passed through the filter since the last filter change;
- f. A complete spectrum file for each gamma radiation detector (see section C.4.1.f of this Statement of Work);
- g. Ambient air temperature and pressure, and wind speed and direction, averaged over the data acquisition interval.

C.8.3 The following data shall be stored for the current (if a sample is in

progress) and at least the most recent two sample collection intervals:

- a. The date and time (UTC) that sample collection began (and ended, if applicable)
- b. The total sample volume (corrected to STP) collected (or collected thus far, if sampling is in progress);
- c. The average, minimum, and maximum sample flow rate (corrected to STP);
- d. The total number and duration of any power interruptions lasting more than one minute.

C.9 Telemetry System. The monitoring station shall have a telemetry system with multiple redundant telecommunications capabilities. The system shall include the necessary hardware, firmware, and/or software to both send and receive data, using point-to-point protocol, by all of the following methods:

- V.92 hardware modem via analog connection to a local telephone service provider (software modems are unacceptable);
- "Third-generation" cellular telephone data modem, such as a General Packet Radio Service (GPRS) modem on the AT&T Wireless network, 3G CDMA on the Verizon Wireless network, etc.;
- 10/100 Base-TX Ethernet, IEEE 802.3 compliant; and
- LandSat satellite transceiver.

At least two external RS-232 (DB9 or DB15), or USB 2.0, serial ports shall be provided for connecting to external telecommunications hardware devices. Capability shall be provided to install third party device drivers or configuration files for such external hardware to allow them to interface with and be utilized by the telemetry system. This is required so that the telemetry system is capable of interfacing with and utilizing additional communications hardware in the event that the specific hardware itemized above is unuseable, becomes obsolete, or improved/lower cost technologies become available in the future.

C.9.1 The telemetry system shall be capable of automatically transmitting data at user-programmable intervals without operator intervention.

C.9.2 The telemetry system shall automatically poll communication resources for availability, and automatically switch to an alternate communications method if the primary method is unavailable. The designation of primary and alternate methods, and their order of preference, shall be user-programmable.

C.9.3 The telemetry system shall be capable of encrypting data transmissions in accordance with Federal Information Processing Standard (FIPS) 197, Advanced Encryption Standard (AES). Implementation of the AES shall follow the guidance contained in National Institute of Standards and Technology

(NIST) Special Publication 800-21, *Guideline for Implementing Cryptography in the Federal Government* (available at <http://csrc.nist.gov/publications/nistpubs/800-21.pdf>).

C.9.4 Antennae for the cellular telephone and satellite transceivers shall be externally mounted on the external mast (see Section C.10 of this Statement of Work).

C.9.5 The telemetry system must be capable of accepting and connecting with incoming transmissions, using point-to-point protocol, for purposes of remote user interface and control as specified in Section C.6.2 of this Statement of Work.

C.10 Environmental Enclosure. The monitoring station shall have an outdoor enclosure suitable to protect the filter and other non-weatherproof components from precipitation, wind, dust, extremes of temperature and humidity; to help maintain temperature control of electronic components and the radiation detectors; and to provide reasonable security for monitoring station components and settings.

C.10.1 Stability and wind loading. The sampler shall be equipped with legs, a stand, or other means to maintain the sampler in a stable, upright position. It shall be designed to remain mechanically intact at wind pressures up to 125 pounds per square foot. Suitable bolt holes, brackets, tie-downs, or other means should be provided to facilitate mechanically securing the monitoring station to the supporting surface to prevent toppling due to wind forces.

C.10.2 Power supply and external sensor connections. The environmental enclosure shall be equipped with:

- flexible water-resistant power cable at least 15 feet long, terminated with a standard NEMA 15-P non-locking plug, for supplying power to all monitoring system components; and
- weatherproof disconnects for all sensor/antenna equipment that may be mounted on the external mast.

C.10.3 Heating and cooling. The environmental enclosure shall be equipped with a thermostatically controlled heater and/or ventilation fan(s) as required for proper operation of all equipment inside the enclosure throughout the range of ambient environmental conditions as specified in section C.1.1 of these specifications.

C.10.4 Access openings. The enclosure shall be equipped with hinged doors of sufficient size to facilitate access to the filter media, and the removal and replacement of all internal components, without dismantling the enclosure.

All hinged doors shall be provided with locks.

C.10.5 Maximum dimensions and weight. The width, depth, and height of the environmental enclosure (not including the externally-counted mast) shall not exceed 30 inches, 30 inches, and 72 inches, respectively. The weight of the enclosure with all components installed shall not exceed 150 pounds.

C.11 External Mast. The monitoring station shall be equipped with a telescoping mast that attaches externally to the environmental enclosure. The mast shall provide for mounting antenna(s) for any wireless telecommunications equipment that requires an external antenna, and for the wind speed and direction instrumentation. The ambient air temperature and barometric pressure sensors may also be mounted on the mast at the Contractor's option, provided that the performance specifications for those sensors are met when they are so mounted. When fully retracted, the highest point of the mast with all antenna(s)/instrumentation installed shall not be greater than 2.5 meters above the surface on which the monitoring station is sitting, however, the fully retracted mast shall not interfere with accessing the filter media or any components inside the environmental enclosure. When fully extended, the lowest point of the installed antenna(s)/instrumentation shall be at least 3 meters above the surface on which the monitoring station is sitting.

The mast shall be capable of being rotated during installation to facilitate alignment of the wind direction sensor, then locked into position so that it will not rotate during operation. The mast shall be indelibly marked to indicate the position corresponding to a reading of 360 degrees on the wind direction sensor.

C.12 Wind Velocity and Direction Instruments. The prototype monitoring station shall be provided with wind speed and direction sensors. These sensors will be optional equipment on the Production units. The wind speed and direction sensors shall be mounted on the external mast. Performance requirements are as follows:

- The starting wind velocity for both sensors shall not exceed 0.5 meters per second.
- The wind direction sensor shall be mounted in such a way to provide positive assurance that it will not rotate during operation.
- The output of both instruments shall be values that are averaged over an interval of not less than two minutes nor more than fifteen minutes, rather than instantaneous values.
- The wind velocity instrument units shall be meters per second (m/s), with a range of 0 to 50 m/s, resolution of 0.5 m/s, and accuracy of ± 0.5 m/s up to 5 m/s and $\pm 10\%$ at higher velocities.
- The wind direction instrument units shall be degrees, with a range of 1 to 360 degrees, resolution of 10 degrees, and accuracy of ± 5 degrees.

C.13 Monitoring Station Documentation. Documentation provided with each monitoring station shall include the following:

- a. An operator's manual, which includes instructions on the operation, calibration, and user maintenance of the station. The manual shall include adequate warning of potential safety hazards that may result from normal use or malfunction of the equipment, and a description of necessary safety precautions.
- b. A separate installation and maintenance manual, that includes detailed and comprehensive procedures for assembly, installation, operation, periodic and corrective maintenance, and troubleshooting. Schematic and component layout drawings shall be provided for all circuit boards. Assembly drawings shall be provided for all mechanical assemblies. All drawings shall identify components by part number and be accompanied by part lists that include all components shown in the drawings.
- c. All documentation is to be provided in electronic form on CD-ROM in portable document format (PDF) files.

D. MONITORING STATION ACCESSORY EQUIPMENT

D.1 Calibration Kit. The calibration kit shall include transfer standards traceable to the NIST, and all required accessory equipment, needed to calibrate the ambient air temperature and pressure instruments and air sampler flow measuring instrument. The kit shall include a reusable case with handle suitable for storing, protecting and shipping all of the required transfer standards and equipment. The case shall provide adequate additional space to accommodate government-provided transfer standards for calibrating the radiation detectors, which will be two to five 5"-diameter 3/32-inch thick plastic-encased disks.

Instructions for using the equipment in the calibration kit shall be provided, and may, at the manufacturer's option, be included in the instruction manual for the monitoring station (see Section C.13 of this Statement of Work), or in a separate instruction manual to be included in each calibration kit.

D.2 Remote User Interface and Control Software. A software application shall be provided for remotely performing all of the functions specified in Section C.6.2 of this Statement of Work. The software shall have an intuitive graphical user interface.

D.3 Training Video. The manufacturer shall provide a video that explains and demonstrates the operation, calibration, and user maintenance of the monitoring system, and include a demonstration and explanation of the

operation of each major component of the system. The script and graphics will be reviewed by EPA NAREL Montgomery. The video shall be edited or revised by the Contractor as necessary to incorporate reviewer comments.

NOTE: The EPA will reserve the right to copy, distribute and edit this video freely, in any video format without royalty consideration to the Contractor.

E. ON-SITE INSTALLATION AND START-UP SERVICES

The monitoring stations are intended to be installed at differing individual locations throughout the United States and its territories. At each location the site operator will be responsible for site preparation for installation, including providing a concrete pad with anchor bolts or other suitable physical mounting means. The site operator will also be responsible for providing a weather-proof enclosure at the installation site that contains an electrical service connection, an RJ-11 analog connection to the local public telephone network, and an RJ-45 connection to their Local Area Network (if used). Monitoring stations will be shipped to each site and temporarily stored by the station operator in the packaging that they were shipped in.

The Contractor shall provide onsite installation and start-up services as follows:

- Travel to and from the installation site;
- Unpack and physically install the monitoring station;
- Connect the monitoring station to operator-supplied electrical and telecommunications services;
- Install external wireless communications antennas and align them for optimum signal strength;
- If optional wind speed and direction instruments are included for the station, install the sensors to the mast and align the wind direction sensor to north;
- Test the station and components as required to verify that all components are functioning properly, and correct any deficiencies identified;
- Demonstrate the normal operation, user maintenance, and calibration of the station to the station operator. During the course of this demonstration, an actual remote calibration by the EPA NAREL or its designated service Contractor may be performed, at NAREL's discretion, with telephone coordination between the installation site and the NAREL.

Upon completion of the on site service, the monitoring station must be fully functional and calibrated.

F. SYSTEM WARRANTIES

The system shall be warranted to be suitable for its intended use (See Section A of this Statement of Work). This includes all software and firmware, and in addition, all software and firmware shall be expressly warranted to operate satisfactorily on the platform provided; disclaimers of warranty of fitness for purpose are unacceptable.

System hardware shall be warranted to be free from defects in materials and workmanship for at least one year after delivery, or after installation and start-up by the manufacturer's representative if that option is exercised by the government, whichever is later.

Any repairs, modifications, or replacements required to satisfy the above warranty requirements may be made either at the manufacturer's facility or at the installed location of the monitoring station, at manufacturer's option. All costs for removal, shipping, and re-installation, or for manufacturer's representative to travel to and from the installed monitoring station location, shall be the responsibility of the manufacturer and will not be paid or reimbursed by the government. Any such repairs, modifications, or replacements must be completed (meaning that the monitoring station is in the location that it was installed in prior to repair, modification or replacement, and operating as intended) within 30 days after notification of the manufacturer by the government of a defective condition.

G. REPORTING REQUIREMENTS

The Contractor shall provide a monthly status report. The report shall be submitted via email to the Contracting Officer's Representative (COR) on the 15th day of each month, or first business day thereafter if the 15th day of the month is not a business day. The report shall briefly include project status highlights, including which major components have been chosen for each of the major functions of the system and any changes in the system configuration from the previous month. The report shall also include a project-updated timeline. The timeline shall include delivery dates projected for the first completed unit and for the 59 additional